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## Name Changes for Chinese *Pilea* (Urticaceae)

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**ABSTRACT.** Two new names in *Pilea* Lindley from China are published: *Pilea panzhihuaensis* C. J. Chen, A. K. Monro & L. Chen and *P. spicata* C. J. Chen & A. K. Monro. A lectotype is designated for the basionym of *P. spicata*, *Smithiella myriantha* Dunn. The origins of the new names are explained, synonymy of the resurrected name is given, and an illustration of *P. panzhihuaensis* is provided.

**Key words:** China, Flora of China, *Pilea*, *Podophyllum*, Urticaceae.

*Pilea* Lindley, with over 700 species (Monro, 2005), is the largest genus in the Urticaceae and one of the larger genera in the Urticalean Rosids. It is distributed throughout the tropics, subtropics, and temperate regions (with the exception of Australia and New Zealand). *Pilea* can be easily distinguished from most other Urticaceae by the opposite leaves (with very rare exceptions), in combination with a single ligulate intrapetiolar stipule in each leaf axil and both male and female flowers borne on branching inflorescences. The genus was last monographed by Weddell (1869). Since that time, the majority of taxonomic contributions have come from Flora treatments (Monro, 2005). *Pilea* in China was last revised by Chen (1982, 1995) and Chen and Monro (2003), at which time 80 species were recognized. Since the latter treatment, collections from southwestern Sichuan and the recognition that two previously accepted names are later homonyms have necessitated the creation of two new names and the resurrection of a third name.

***Pilea panzhihuaensis*** C. J. Chen, A. K. Monro & L. Chen, nom. nov. Replaced name: *Podophyllum cavaleriei* H. Léveillé, Bull. Acad. Geogr. Bot. 24: 142. 1914, non *Pilea cavaleriei* H. Léveillé, Repert. Spec. Nov. Regni Veg. 11: 65. 1912.

**TYPE:** China. Guizhou: Zhenming (Kchen-lin), shady, rocks, Dec. 1911, *J. Cavalerie* 3937 (holotype, P; isotype, E). Figure 1.

Herbs perennial, rhizomatous and stoloniferous, glabrous, dioecious, sometimes monoecious; stems somewhat succulent, green, simple, erect, sometimes climbing, 50–150 × 1–2 cm, internodes 2–5 cm, smooth. Leaves decussate (opposite), deciduous on the basal half of the stems; leaf scars conspicuous, ± orbicular, 7–10 mm diam.; stipules large, squamose, persistent distally, light green, broadly ovate, 15–20 × 12–17 mm, with margin somewhat reflexed, and obtuse to acute; petioles subequal in length at each node, 4–10 cm; leaf blade subequal in size at each node, 7–11 × 6–10 cm, ± orbicular, broadly ovate when young, peltate, succulent, chartaceous when dry, green on both surfaces, gray-green when dry, base emarginate, subtruncate to rounded, margin entire or inconspicuously undulate, apex acute or shortly acuminate, 3-veined, lateral veins 4 or 5 each side, inconspicuous, external secondary veins 7 to 9, anastomosing close to the margin, cystoliths fusiform, often conspicuous adaxially. Inflorescences solitary, in upper nodes, staminate inflorescence a cymose panicle, 8–20 cm, peduncle 4–10 cm; bracts narrowly ovate, ca. 0.3 mm; pistillate inflorescence shorter and narrower than staminate inflorescence, 6–15 cm, peduncle 1.5–6 cm. Staminate flowers pink, pedicellate, obovoid in bud, 1.2–1.5 mm, perianth lobes 4, obovate, connate for their basal half, subapical appendage corniculate; stamens 4; pistillate flowers 0.4–0.5 mm, light green, sessile, perianth lobes 3, unequal, the dorsal lobe cymbiform, as long as the achene, the subapical appendage strongly corniculate, the lateral lobes deltate, half the length of the achene; staminodes oblong; ovary with an oblique apex, stigma sessile, shortly penicillate. Achene narrowly ovoid, ca.



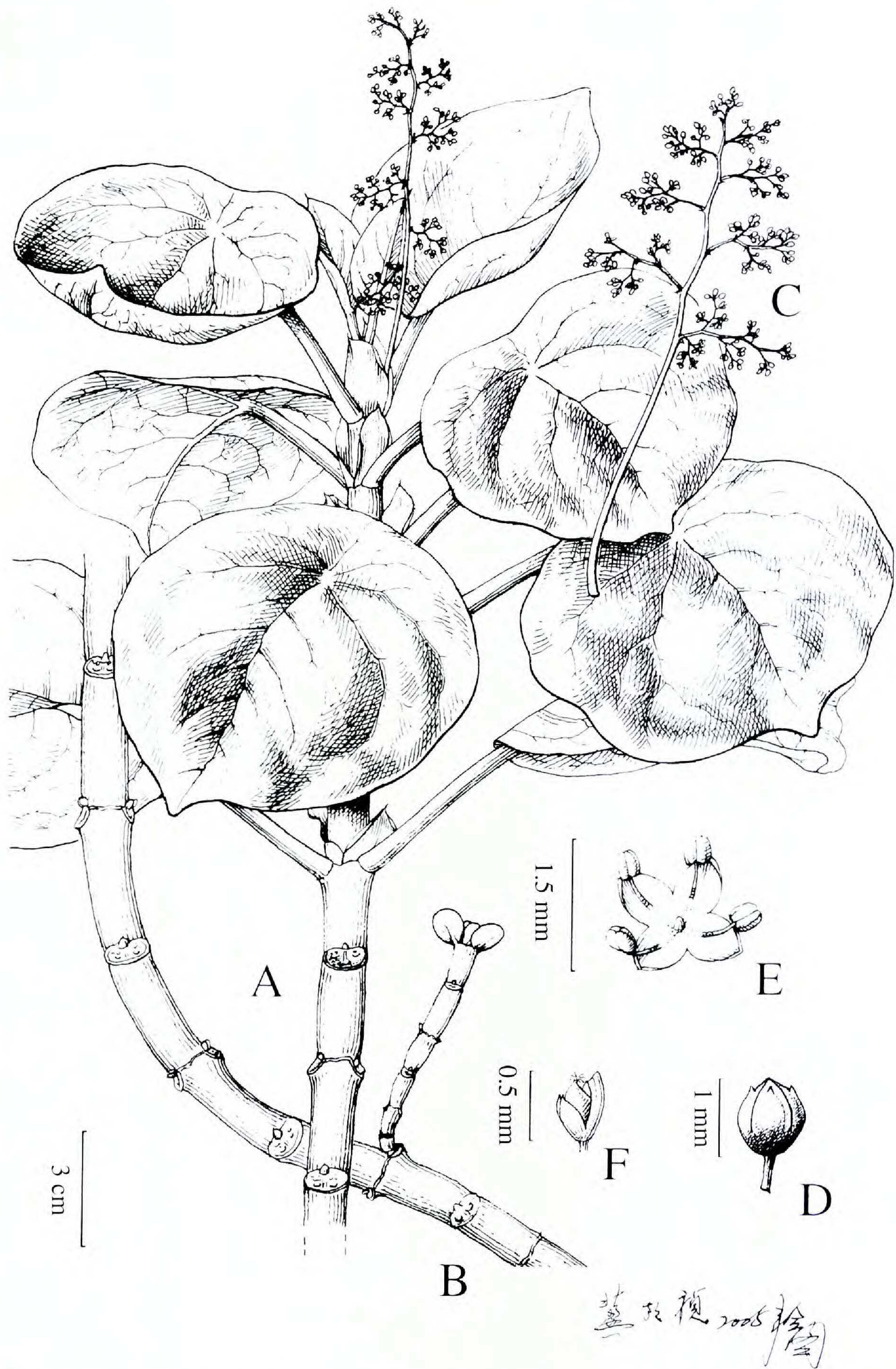


Figure 1. *Pilea panzihuaensis* C. J. Chen, A. K. Monro & L. Chen. —A. Habit. —B. Plant base. —C. Staminate inflorescence. —D. Staminate flower in bud. —E. Staminate flower at anthesis, showing perianth, androecium, and rudimentary gynoecium. —F. Pistillate flower, showing perianth and distal half of the gynoecium. Scale bar common to A, B, and C. Illustrations by C. Z. Ji. A–C based on *Chen & Chen 2004-001* (PE); D–F based on *Chen 2003-001* (PE).



0.6 mm, weakly compressed, oblique, verrucose, tepals persistent.

This species was incorrectly ascribed by L veill  (1914) to the genus *Podophyllum* L. (Berberidaceae). Recognizing this, Handel-Mazzetti (1929) transferred L veill 's species to *Pilea*, reducing it to the synonymy of *Pilea peperomioides* Diels (Diels, 1912). However, L veill 's species is distinct from *P. peperomioides* in leaf arrangement, stem, and stipule morphology. The leaves of *P. panzihuaensis* are decussate as opposed to the spirally arranged leaves of *P. peperomioides*, the stipules have obtuse (with a minute apiculus) as opposed to long-acute to acuminate apices, and the stems have much longer internodes and grow to over 1 m in length as opposed to less than 0.5 m.

The specific epithet "cavaleriei" cannot be used in combination with *Pilea*, as it would be a later homonym of *Pilea cavaleriei* H. L veill  (1912). Because the species described as *Podophyllum cavaleriei* lacks an available name once transferred to *Pilea*, we here propose the new name *Pilea panzihuaensis*.

*Phenology.* Flowers from April to June; fruits from June to August.

*Habitat, distribution, conservation status, and eponymy.* This taxon is endemic to southwestern China, specifically southwestern Sichuan and western Guizhou, where it is found in forests on rocks in shady, moist, moss-rich places at altitudes of 1500–1900 m. The similarity of this taxon to *Pilea peperomioides*, which is widely cultivated as an ornamental, indicates that *P. panzihuaensis* may have horticultural potential. It has been collected rarely and can probably be considered very rare. The local names for this taxon are Jing Mian Hua and Pa Qing Teng (L. Chen, pers. comm., 2001), which refer to the plant's orbicular leaves and the inflorescence extending beyond the leaves. This species takes its name from the locality for recently collected material.

*Additional specimens examined.* CHINA. **Sichuan:** Miyi County, Panzihua, L. Chen 2002-01 (PE), C. J. Chen 2003-001 (PE), 2003-002 (PE), C. J. Chen & L. Chen 2004-001 (PE), 2004-002 (PE), C. J. Chen 2006-01 & 02 (PE).

***Pilea spicata*** C. J. Chen & A. K. Monro, nom. nov.  
Replaced name: *Smithiella myriantha* Dunn, Bull. Misc. Inform. Kew 1920(6): 211. 1920. *Aboriella myriantha* (Dunn) Bennet, Indian Forester 107(7): 437. 1981. *Dunniella myriantha* (Dunn) Rauschert, Taxon 31(3): 563. 1982. TYPE: [India]. "Eastern Himalaya, Outer Abor Hills, on the sunless side of the Dihong Gorge in dark, damp places below Rotung at 300 m," J. H. Burkill 36076 (lectotype, designated here, K).

Although Chen and Monro (2003) used the binomial *Pilea myriantha* (Dunn) C. J. Chen, this is a later homonym of *P. myriantha* Killip and is therefore illegitimate. *Pilea spicata* is therefore published here as a replacement name for *P. myriantha*. This species takes its name from the spicate pistillate inflorescences.

***Pilea gracilis*** Handel-Mazzetti, Symb. Sin. 7: 136. 1929. TYPE: China. Yunnan: Simao, forest ravines, 4000 ft., A. Henry 13352 (lectotype, designated by Chen, 1982: 87, IBSC).

*Pilea verrucosa* Handel-Mazzetti, Symb. Sin. 7: 134. 1929, nom. illeg., non *P. verrucosa* Killip, J. Wash. Acad. Sci. 15: 53. 1925. TYPE: China. Hunan: Wukang, Guangyin Temple, 1180 m, 18 June 1918, Handel-Mazzetti 12145 (lectotype, designated by Chen, 1982: 55, K).

This taxon was formerly known as *Pilea verrucosa* Handel-Mazzetti. However, this name is a later homonym of *P. verrucosa* Killip. Therefore, the name *P. gracilis* Handel-Mazzetti has been selected as the next available name. In the original published description of *P. gracilis*, the type collection was erroneously cited as A. Henry 1352, rather than A. Henry 13352 (Handel-Mazzetti, 1929).

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